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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.           | CONFIRMATION NO. |
| 10/532,499  | 09/06/2005  | Shuji Kawasaki       | 270680US0XPCT                 | 4345             |
| 22850 7590 08/26/2008<br>OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.<br>1940 DUKE STREET<br>ALEXANDRIA, VA 22314 |             |                      | EXAMINER<br>KURTZ, BENJAMIN M |                  |
|   |             |                      | ART UNIT                      | PAPER NUMBER     |
|   |             |                      | 1797                          |                  |
|   |             |                      | NOTIFICATION DATE             | DELIVERY MODE    |
|   |             |                      | 08/26/2008                    | ELECTRONIC       |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/532,499 | <b>Applicant(s)</b><br>KAWASAKI ET AL. |  |
|                              | <b>Examiner</b><br>BENJAMIN KURTZ    | <b>Art Unit</b><br>1797                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 2,4,6,8 and 14-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,7,9-13,19 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/05</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of Group I in the reply filed on 7/14/08 is acknowledged. The traversal is on the ground(s) that group I and Group II contain the same special technical feature of the plastic powder adhered to a particulate compound. This is not found persuasive. The applicant states in the reply filed 7/14/08 that the invention of group II recites "muting a particulate compound and a plastic powder together" and then states that this would give you the "plastic powder adhered to a particulate compound". There is no support in the specification that muting means the two substances are adhered. There is no support in the specification for what is meant by the term muting and this does not appear to be a commonly known term in the art, therefore one of ordinary skill in the art would not assume the term to mean what the applicant now wants it to mean. Also, the composite adsorbent of group I does not have a special technical feature as it is anticipated by the prior art as detailed in the office action below.

The requirement is still deemed proper and is therefore made FINAL.

### ***Information Disclosure Statement***

2. The information disclosure statement filed 4/25/05 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in

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the English language. It has been placed in the application file, but the information referred to therein has not been considered.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**3. Claims 1, 9-12, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Williamson et al. US 6 274 041.**

Claims 1, 9, 11 and 12, Williamson teaches a composite adsorbent comprising: a composite powder which is composed of a particulate compound (zeolite) and a plastic powder, that is a thermoplastic resin, polyethylene, adhered to the particulate compound, and at least one adsorptive substance (activated carbon) that is particulate (col. 7, lines 8-47).

Claim 10, the melt flow rate of the thermoplastic resin is an inherent quality of the resin. Williamson teaches the same thermoplastic resin, polyethylene, as disclosed by the applicant and is therefore deemed to meet the limitations of the claim.

Claims 19 and 20, the recitation of a water purification material and a water purifier are recitations of the intended use of the product of claim 1. However,

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Williamson teaches the composite adsorbent is a water purification material (col. 2, lines 15-18); and because the composite adsorbent is a water purification material it would inherently be used in a water purifier.

**4. Claims 1, 7, 9-12, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Sekine et al. US 5 997 829.**

Claims 1, 9, 11 and 12, Sekine teaches a composite adsorbent comprising: a composite powder which is composed of a particulate compound (zeolite) and a plastic powder, that is a thermoplastic resin, polyethylene, adhered to the particulate compound, and at least one adsorptive substance (activated carbon) that is particulate (col. 3, lines 38-60).

Claim 7, Sekine further teaches an adhesion quantity of the particulate compound is 50-95% by weight of the composite powder (col. 4, lines 24-36).

Claim 10, the melt flow rate of the thermoplastic resin is an inherent quality of the resin. Sekine teaches the same thermoplastic resin, polyethylene, as disclosed by the applicant and is therefore deemed to meet the limitations of the claim.

Claims 19 and 20, the recitation of a water purification material and a water purifier are recitations of the intended use of the product of claim 1. However, Sekine teaches the composite adsorbent is a water purification material (col. 1, lines 7-11); and because the composite adsorbent is a water purification material it would inherently be used in a water purifier.

**5. Claims 1, 3, 5, 7, 9-12, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Lisenko US 5 639 550.**

Claims 1, 3, 5, 9, 11 and 12, Lisenko teaches a composite adsorbent comprising: a composite powder which is composed of a particulate compound (titanium silicate) that is 200 microns or less in mean particle diameter and a plastic powder, that is a thermoplastic resin, polyethylene, adhered to the particulate compound, and at least one adsorptive substance (activated carbon) that is particulate (col. 3, line 21 – col. 4, line 21).

Claim 7, Lisenko teaches an adhesion quantity of the particulate compound is 50-95% by weight of the composite powder (col. 5, lines 7-12).

Claim 10, the melt flow rate of the thermoplastic resin is an inherent quality of the resin. Lisenko teaches the same thermoplastic resin, polyethylene, as disclosed by the applicant and is therefore deemed to meet the limitations of the claim.

Claims 19 and 20, the recitation of a water purification material and a water purifier are recitations of the intended use of the product of claim 1. However, Lisenko teaches the composite adsorbent is a water purification material (col. 1, lines 6-10); and because the composite adsorbent is a water purification material it would inherently be used in a water purifier.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**6. Claim 13 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Williamson '041 or Sekine '829 or Lisenko '550.**

Williamson, Lisenko and Sekine teach the composite adsorbent of claim 1 but do not teach the composite adsorbent is molded. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 227 USDQ 964 (1985). The process of molding the composite adsorbent is considered to be a structural alternative to the process as taught in Williamson, Lisenko or Sekine.

**7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Williamson '041.**

Williamson teaches the particulate compound of claim 1, where the particulate compound is granulated, meaning "encompassing any particulate material, regardless of particle sizes, which may be suitable for use in the present invention. Thus, the term is intended to include powders." (col. 4, lines 22-27). Although Williamson does not teach the specific particle diameter any suitable diameter particle is included in the invention as taught by Williamson. Therefore, it would be obvious to one of ordinary skill in the art to determine the optimal ranges for the particle diameter for whatever operating conditions might be expected by the end user. [W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation, *In re Aller*, 105 USPQ 233 (1955).

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 7 293 661 to Saaski et al. and US 6 395 190 to Koslow et al.
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN KURTZ whose telephone number is (571)272-8211. The examiner can normally be reached on Monday through Friday 8:00am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Benjamin Kurtz  
Examiner  
Art Unit 1797

/BK/ 8/21/08

/Krishnan S Menon/  
Primary Examiner, Art Unit 1797